

## EVALUATION OF DIGITAL FLOOD REPORTING SYSTEM AMONG PRIMARY HEALTHCARE PROVIDERS DURING NORTHEAST MONSOON 2023/2024

Munira Hj Mahmud  
Pasir Mas Health District Office, Kelantan Malaysia

Azimi Pa'Adek  
Pasir Mas Health District Office, Kelantan Malaysia

Aliff Ridzwan Hamidun  
Pasir Mas Health District Office, Kelantan Malaysia

Najihah Mahfuzah Zakria  
Pasir Mas Health District Office, Kelantan Malaysia

Yelmizaitun Osman  
Kelantan State Health Department, Ministry of Health Malaysia, Malaysia

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### ABSTRACT

*INTRODUCTION: Effective disaster response relies on timely, accurate data collection to support decision-making and resource allocation. OBJECTIVE: This study aimed to evaluate the usability of Google Forms as a tool for daily flood reporting during the Northeast Monsoon season in Pasir Mas, Kelantan among primary healthcare (PHC) providers. METHODOLOGY: A cross-sectional study was conducted during Northeast Monsoon 2023/2024, involving PHC providers who engaged in flood management in the Pasir Mas District. Participants were categorised as professionals (medical doctors and pharmacist) and non-professionals (nurses, allied health profession and administrative staff). Usability was assessed using a self-administered, validated Malay System Usability Scale (SKAMA) questionnaire. One-way ANCOVA was applied to analyse differences in mean usability score between the professional groups, after controlling for potential confounders (age, internet issues, familiarity with Google Forms). RESULTS: Out of 136 respondents, the mean usability score was 69.5, exceeding the standard usability threshold of 68, indicating overall satisfactory usability of the system. The professional group reported significantly higher mean usability score [74.7 (95% CI: 69.4, 89.1)] compared to non-professional group [65.1 (95% CI: 62.2, 68.0)],  $p < 0.001$ . This suggests that professional PHC providers found the digital flood reporting system more user-friendly and effective compared to non-professionals. CONCLUSION: Digital flood reporting system proves its effectiveness in timely dissemination of crucial data that is required during flood management in the Northeast Monsoon. Thus, this system can benefit all stakeholders that are involved in flood management. Enhancing digital literacy through proper training among non-professional staff is very important to maximize its potential.*

Keywords: Digitalization, Disaster Response, Usability, Public Health Evaluation, Flood

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